

ABSTRACT OF THE DISCLOSURE

A surgical instrument navigation system is provided that allows a surgeon to invert the three-dimensional perspective of the instrument to match their perspective of the actual instrument. The surgical instrument navigation system includes: a surgical instrument; an imaging device that is operable to capture image data representative of a patient; a tracking subsystem that is operable to capture in real-time position data indicative of the position of the surgical instrument; and a data processor adapted to receive the image data from the imaging device and the position data from the tracking subsystem. The data processor is operable to generate a three-dimensional representation of the surgical instrument as it would visually appear from either of at least two different perspectives and to overlay the representation of the surgical instrument onto the image data of the patient. The navigation system further includes a display that is operable to display the representation of the surgical instrument superimposed onto the image data of the patient.